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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,743	12/18/2000	Sehat Sutardja	MP0020	1406

26703 7590 02/03/2006

HARNESSE, DICKEY & PIERCE P.L.C.  
5445 CORPORATE DRIVE  
SUITE 400  
TROY, MI 48098

EXAMINER

PHU, PHUONG M

ART UNIT PAPER NUMBER

2631

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/737,743

Applicant(s)

SUTARDJA, SEHAT

Examiner

Phuong Phu

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10, 17-27, 34-39, 44, 46, 48, 50, 51, 54, 55, 58, 59 and 85-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 17-20, 27, 35, 36, 44, 46, 48, 51, 55, 58, 85-89 and 96 is/are rejected.
- 7) ☒ Claim(s) 5-9, 21-26, 34, 37-39, 50, 54, 59 and 90-95 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/5/06 & 1/12/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is responsive to the Applicant's Response filed on 12/12/05.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 10, 17-20, 27, 35, 36, 44, 46, 48, 51, 55, 58, 85-89, 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henrie (6,751,202) in view of Iwaoji (5,202,528), both previously-cited.

-Regarding to claims 1, 17, 35, 85, see figure 1, and col. 1, line 25 to col. 4, line 25, Henrie discloses a method and associated system comprising a near end circuit (see figure 1) wherein at the near end circuit the method/system comprises:

.step/means having a near end transmitter (16, 30, 40) for transmitting a transmitted signal (outputted from means(40)) to means (50);

.step/means having a hybrid (50, 70, 60) having an input in communication with an output of said near end transmitter for communicating the transmitted signal to, and a received signal from a channel (22);

.step/means having a near end replication transmitter (comprising means(30) and a splitter (inherently included at point (34)) for transmitting a replication signal which is outputted from means (30) to means (110), wherein the replication signal is not the transmitted signal;

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.step/means having a filter (110), responsive to said near end replication transmitter for filtering said replication signal;

.step/means having a subtractor (90) to subtract an output derived from said filter from the output from said near end transmitter and an output of said hybrid, the output from said the output from said near end transmitter and said output of said hybrid being the combination of an echo of said near end transmitter and signal received by the hybrid from telephone line (22); and

.step/means having a near end receiver (16, 32) responsive to an output of said subtractor.

Henrie does not disclose that the filter (110) is a highpass filter.

However, Henrie discloses that the filter (110) is a bandpass filter (see figure 1).

Iwaooji teaches that a bandpass filter can have an alternative as a cascade of a highpass filter and a lowpass filter (see col. 2, lines 5-7 and col. 4, line 68 to col. 5, line 2).

Therefore, it would have been obvious for one skilled in the art to implement Henrie such that the filter (110) would be implemented with an alternative as a cascade of a highpass filter and a lowpass filter, as taught by Iwaooji because they the bandpass filter and the cascade of said highpass filter and said lowpass filter are considered equivalent in art.

So, with such the implementation, Henrie in view of Iwaooji teaches said highpass filter responsive to said near end replication transmitter, and said subtractor (90) to subtract an output derived from said highpass filter from the output from said near end transmitter and said output of said hybrid.

-Regarding to claims 2, 18, 86, Henrie discloses that said hybrid further comprises an isolation transformer (24) (see col. 2, lines 59-65).

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-Regarding to claims 3, 19, 87, Henrie discloses that said hybrid further comprises an active circuit (80) (see figure 1).

-Regarding to claims 4, 20, 36, 88, Henrie discloses that said near end replication transmitter is adjustable (see (100) of figure 1, and col. 2, line 46).

-Regarding to claims 51, 55, 58, 89, Henrie discloses that said near end replication transmitter comprises an adjustable gain control amplifier (100) (see figure 1) which can be considered as a voltage multiplier for multiplying an output of the replication signal.

-Regarding to claims 10, 27, 96, Henrie in view of Iwaooji does not discloses that said high pass filter comprises a combination of a resistance and a capacitance. However, implementing a high pass filter as a one comprising a combination of a resistance and a capacitance is well-known in the art, and the examiner takes Official Notice. It would have been obvious for one skilled in the art, when building or carrying out Henrie invention in view of Iwaooji, to implement said highpass filter as a one comprising a combination of a resistance and a capacitance so that such the implementation would provide said highpass filter as being required.

-Regarding to claims 44, 46 and 48, as applied to claims 1, 17 and 35, Henrie in view of Iwaooji teach a near end circuit (see Henrie, figure 1), as claimed. Henrie in view of Iwaooji does not teach a far end circuit which has the same structure as the near end circuit, as claimed with specified procedures. However, in Henrie invention in view of Iwaooji, a far end circuit is inherently included at the other end of the channel (22) (see Henrie, figure 1) for transmitting/receiving signals to/from the near end circuit. It would have been obvious for one skilled in the art to implement ,in Henrie invention in view of Iwaooji , the far end circuit to have

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the same structure as the near end circuit for performing the same procedures so that the far end circuit would be able to transmit and receive signals to/from the near end circuit, as being required, and also have a feature of echo-cancellation.

***Allowable Subject Matter***

3. Claims 5-9, 34, 50, 21-26, 54, 37-39, 59, 90-95 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments filed on 12/12/05 have been fully considered but they are not persuasive.

The applicant mainly argues that:

(i) With respect to claim 1, Henrie does not disclose a near end replication transmitter, as claimed.

(ii) With respect to claim 1, Clair Jr et al is non-analogous art.

(iii) With respect to claim 1, there is no motivation for substituting Henrie band pass filter (110) with a cascade of a high pass filter and a low pass filter, being an alternative as taught by Clair Jr et al.

(iv) With respect to claim 1, Henrie in view of Iwaoji does not teach a high pass filter responsive to the near end replication transmitter, and a subtractor to subtract an output from the highpass filter from the output from the near end transmitter and an output of the hybrid.

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(v) With respect to claims 10, 27 and 96, the applicant traverses the assertion of Office Action that implementing a high pass filter as one comprising a combination of resistance and capacitance is well-known in the art.

-Regarding to part (i), the examiner respectfully disagrees. As set forth above in this Office Action, Henrie discloses a transmitter (comprising means(30) and a splitter (inherently included at point (34)) (see figure 1) for transmitting a signal, which is outputted from the splitter at point (34), to means (110) wherein with respect to a near end transmitter (16, 30, 40), the transmitter (comprising means(30) and the splitter) can be considered as a near end replication transmitter because the transmitted signal of the transmitter and the output from means (40) of the near end transmitter are split signal versions being derived from an output signal outputted from means (30).

-Regarding to part (ii), the examiner also disagrees. Accordance of M.P.E.P. 2141.01 (a), where the general scope of a reference is outside the pertinent field of inventor's endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved. Clair Jr et al reference is considered an analogous art because it is pertinent to an aspect of filtering an electrical signal by using a high pass filter that claim 1 is concerned.

-Regarding to part (iii), the examiner also disagrees. Accordance of M.P.E.P. 2144.06, In order to reply on equivalence as a rationale supporting an obvious rejection, the equivalency must be recognized in the prior art. The motivation for substituting Henrie band pass filter (110) with a cascade of a high pass filter and a low pass filter, being an alternative as taught by Clair Jr et al can be relied on the fact that a cascade of a high pass filter and a low pass filter is an

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equivalent of a band pass filter where the equivalency is recognized by Clair Jr et al (see col. 2, lines 5-7).

-Regarding to part (iv), the examiner also disagrees. Henrie in view of Iwaoji does teach a high pass filter of the cascade of the high pass filter and a low pass filter, which substitutes Henrie band pass filter (110) (see Henrie, figure 1), responsive to the near end replication transmitter, and a subtractor (90) to subtract an output from the highpass filter from the output from the near end transmitter and an output of the hybrid, wherein the output from said the output from said near end transmitter and said output of said hybrid is a combination of an echo of said near end transmitter and signal received by the hybrid from telephone line (22), and the echo is then canceled out by the subtractor (90) (see Henrie, col. 3, lines 1-22).

-Regarding to part (v), in order to clarify that implementing a high pass filter as one comprising a combination of resistance and capacitance is well-known in the art, the examiner now cites Fink et al, "Electronics Engineers's Handbook", published by McGraw-Hill, Inc. 1982, page 12-31 to page 12-32, and figure 12-29(b). Fink et al teaches a high pass filter (figure 12-29(b)) can be implemented with a combination comprising resistance (2000 ohms) and capacitance (8.105 nF, 6.883 nF).

### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after



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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**PHUONG PHU**  
**PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2631

*Phuong Phu*  
Phuong Phu  
1/25/05